AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-24 have been cancelled.

25. (new) A process for the preparation of a composition of nanoparticles of at least one crystalline metal oxide from at least one organometallic precursor, wherein:
- at least one organometallic precursor that is spontaneously reactive to oxidation is chosen,
- a liquid solution of said at least one precursor in a non-aqueous solvent medium is produced,
- said liquid solution is brought into contact with at least one oxidizing agent under reaction conditions chosen so as to directly bring about the production of nanoparticles of crystalline metal oxide(s).

26. (new) The process as claimed in claim 25, wherein said solvent medium comprises at least one compound, called a ligand, selected from the group consisting of the bases and the acids.

27. (new) The process as claimed in claim 26, wherein there is chosen at least one ligand that is not volatile at the reaction temperature and that acts as dispersing agent for the composition produced in the solvent medium.

28. (new) The process as claimed in claim 26, wherein an aliphatic organic compound is used as ligand.

29. (new) The process as claimed in claim 26, wherein an organic compound containing an unbranched aliphatic chain having from 6 to 20 carbon atoms is used as ligand.

30. (new) The process as claimed in claim 26, wherein at least one ligand is selected from the group consisting of the amines, the acids, the thiols, the phosphorus derivatives and the ethers.

31. (new) The process as claimed in claim 26, wherein at least one ligand is selected from the group consisting of hexadecylamine, dodecylamine, octylamine, dodecylthiol, octanoic acid, oleic acid, lauric acid.

32. (new) The process as claimed in claim 26, wherein at least one base and at least one acid are chosen as ligands.

33. (new) The process as claimed in claim 25, wherein said solvent medium comprises at least two separate compounds.

34. (new) The process as claimed in claim 26, wherein said solvent medium comprises at least one ligand and at least one compound that is volatile under the reaction conditions and gradually evaporates during the oxidation.

35. (new) The process as claimed in claim 34, wherein said solvent medium is formed of THF and an aliphatic primary amine.

36. (new) The process as claimed in claim 25, wherein said reaction conditions comprise ambient pressure and a temperature of from 0°C to 200°C.

37. (new) The process as claimed in claim 25, wherein said reaction conditions comprise ambient temperature.

38. (new) The process as claimed in claim 25, wherein said at least one oxidizing agent is selected from the group consisting of dioxygen, water vapour, the organic oxidizing agents, the other non-organic oxidizing agents.

39. (new) The process as claimed in claim 25, wherein said reaction conditions comprise carrying out the oxidation without stirring the liquid solution.

40. (new) The process as claimed in claim 25, wherein said solvent medium is non-alcoholic.

41. (new) The process as claimed in claim 25, wherein, for the preparation of nanoparticles of crystalline zinc oxide, zinc dicyclohexyl $Zn(C_6H_{11})_2$ is chosen as precursor.

42. (new) The process as claimed in claim 25, wherein, for the preparation of nanoparticles of tin oxide, at least one organometallic precursor is selected from the group consisting of tin bis(bis(dimethylamide)) $[Sn(N(CH_3)_2)_2]_2$ and tin dicyclopentadienyl $Sn(C_5H_5)_2$.

43. (new) The process as claimed in claim 25, wherein, for the preparation of indium oxide, indium cyclopentadienyl $In(C_5H_5)$ is chosen as precursor.

44. (new) The process as claimed in claim 25, wherein, for the preparation of a mixed metal oxide, at least two separate precursors are chosen from the group consisting of zinc dicyclohexyl $Zn(C_6H_{11})_2$, tin bis(bis(dimethylamide)

$[Sn(N(CH_3)_2)_2]_2$, tin dicyclopentadienyl $Sn(C_5H_5)_2$, indium cyclopentadienyl $In(C_5H_5)$.

45. (new) A composition of nanoparticles of at least one crystalline metal oxide in the form of a colloidal liquid solution and having forms and dimensions corresponding to a unimodal distribution.

46. (new) The composition of claim 45, wherein the nanoparticles have form anisotropy.

47. (new) The composition of claim 45, wherein the nanoparticles have an elongated form with an average width of less than 50 nm and an average length of greater than twice the average width.

48. (new) The composition of claim 45, wherein the nanoparticles have an average width of from 2 nm to 7 nm and an average length of from 10 nm to 20 nm.

49. (new) The composition of claim 45, which is composed of nanoparticles of crystalline zinc oxide having a hexagonal structure free of crystalline hydroxide.